



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	Timothy J. Ley, Brian J. Brown
Application No.:	10/055307
Filed:	January 23, 2002
For:	Multi-Layer Stent
Examiner:	Vi X Nguyen
Group Art Unit:	3731

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Docket No.: S63.2B-8618-US01

BRIEF ON APPEAL

This is a Brief on Appeal for the above-identified application in which pending claims 1, 5, and 8-11 were rejected in a Final Office Action mailed March 18, 2005. Claims 1, 5 and 8-11 are pending in the application.

A Notice of Appeal was filed in this case on May 17, 2005. The fees required under §1.17(c) for filing this brief were addressed in the Notice of Appeal. The Commissioner is authorized to charge Deposit Account No. 22-0350 for any other fees which may be due with this Appeal.

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(i) Real Party in Interest

The application is assigned to Boston Scientific Scimed, Inc., formerly known as Scimed Life Systems, Inc., One SciMed Place, Maple Grove, MN 55311-1566, a Minnesota Corporation and a subsidiary of Boston Scientific Corporation, One Boston Scientific Place, Natick, Massachusetts, 01760-1537, a Delaware Corporation.

(ii) Related Appeals and Interferences

None.

(iii) Status of Claims

Claims 1, 5, and 8-11 are pending in the application and have been finally rejected and are the subject of this appeal.

(iv) Status of Amendments

Subsequent to the Final Office Action of March 18, 2005 no amendments have been made to the claims.

(v) Summary of Claimed Subject Matter

A summary of the representative independent claim to which, as required by 37 C.F.R. §41.37(c)(1)(v), and a non-limiting listing of locations where support may be found [bracketed citations] is provided as follows:

Claim 1. A stent has a reduced state and an expanded state, and further has a longitudinal axis therethrough [page 8, lines 2-4 and lines 16-19]. The stent comprises at least one serpentine segment having a proximal end and a distal end, wherein the segment comprises a plurality of peaks and troughs [page 8, lines 4-9]. In the reduced state a plurality of first peaks are disposed a first distance from the longitudinal axis of the stent and a plurality of second peaks are disposed a second distance from the longitudinal axis of the stent, wherein the second distance is less than the first distance [page 8, lines 10-14]. In the expanded state the first distance being substantially the same as the second distance [page 8, lines 18-19]. The first peaks define a substantially cylindrical outer surface of the segment [page 8, lines 14-15].

(vi) Grounds of Rejection to be Reviewed on Appeal

I. Whether the Examiner erred in rejecting claims 1, 5, and 8-11 under 35 U.S.C. § 102(e), as being anticipated by U.S. 6,231,598 to Berry et al (hereinafter: Berry).

(vii) Argument

I. The Examiner erred in rejecting claims 1, 5, and 8-11 under 35 U.S.C. § 102(e), as being anticipated by Berry.

Applicants disagree with the assertion set forth by the Examiner that Berry anticipates all of the elements of instant claims 1, 5 and 8-11.

In the Final Office Action the Examiner asserts that Berry discloses a stent in FIGs. 1-3, which has all of the limitations of the instant claims. In putting forth the rejection the Examiner has misinterpreted the Berry reference to conclude that the single layer stent shown in FIGs. 1-3 of Berry includes in the reduced state a plurality of first peaks disposed a first distance from the longitudinal axis of the stent and a plurality of second peaks disposed a second distance from the longitudinal axis of the stent, wherein the second distance is less than the first distance, and wherein further in the expanded state the first distance is substantially the same as the second distance. A stent with such features is not taught or suggested in FIGs. 1-3 of Berry.

In instant claim 1 a stent is described which has a reduced state and an expanded state, and further has a longitudinal axis therethrough. Such a stent is shown in FIG. 1 as reproduced below.

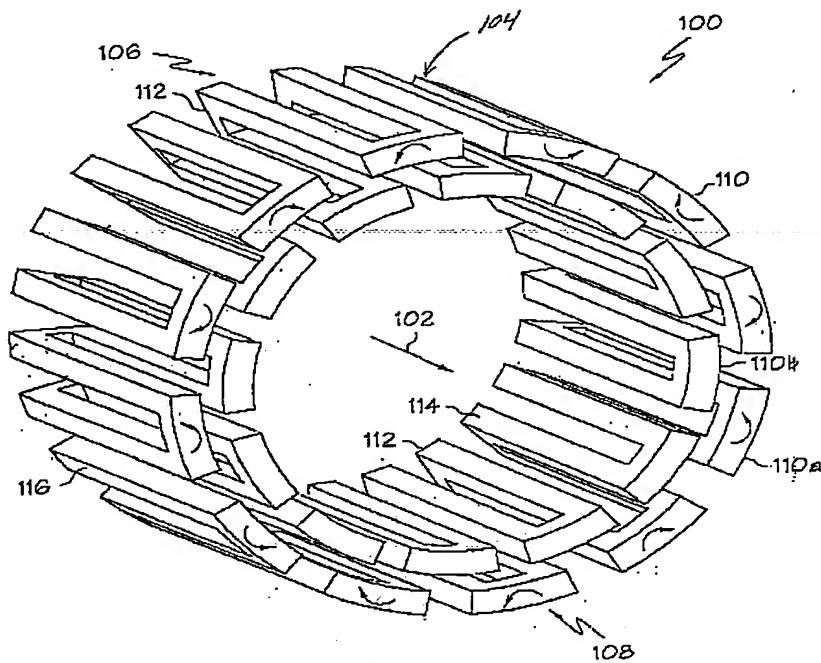


FIG. 1

As is shown in FIG. 1, the stent (100), shown in the reduced state has a longitudinal axis (102) extending *therethrough*, such as is recited in the instant claims. It is also clear from the figure shown, that the stent further includes a plurality of first peaks (110a) *disposed* at a first distance from the longitudinal axis and a plurality of second peaks (110b) *disposed* at a second distance from the longitudinal axis, wherein the second distance is less than the first distance, such as the instant claims also recite. FIG. 2 (reprinted below) of the present application, shows the stent of FIG. 1 in the expanded state wherein the first distance and the second distance are substantially the same.

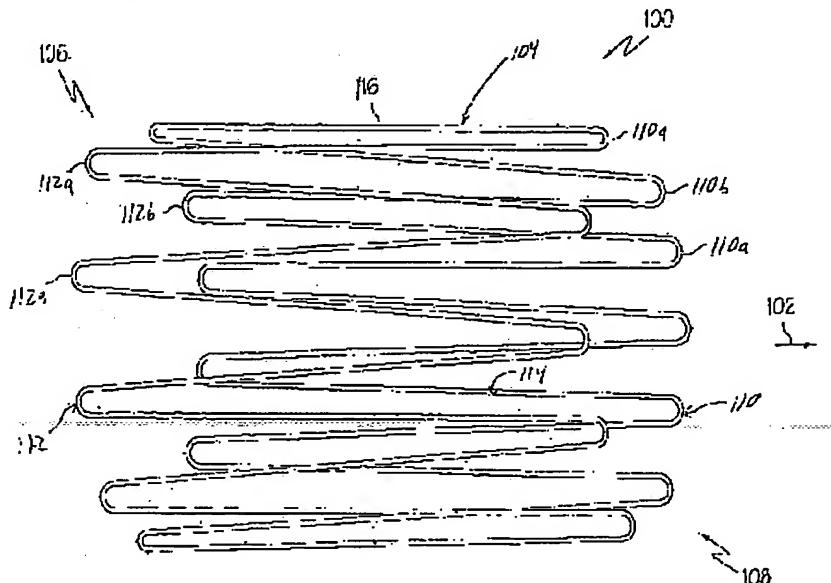
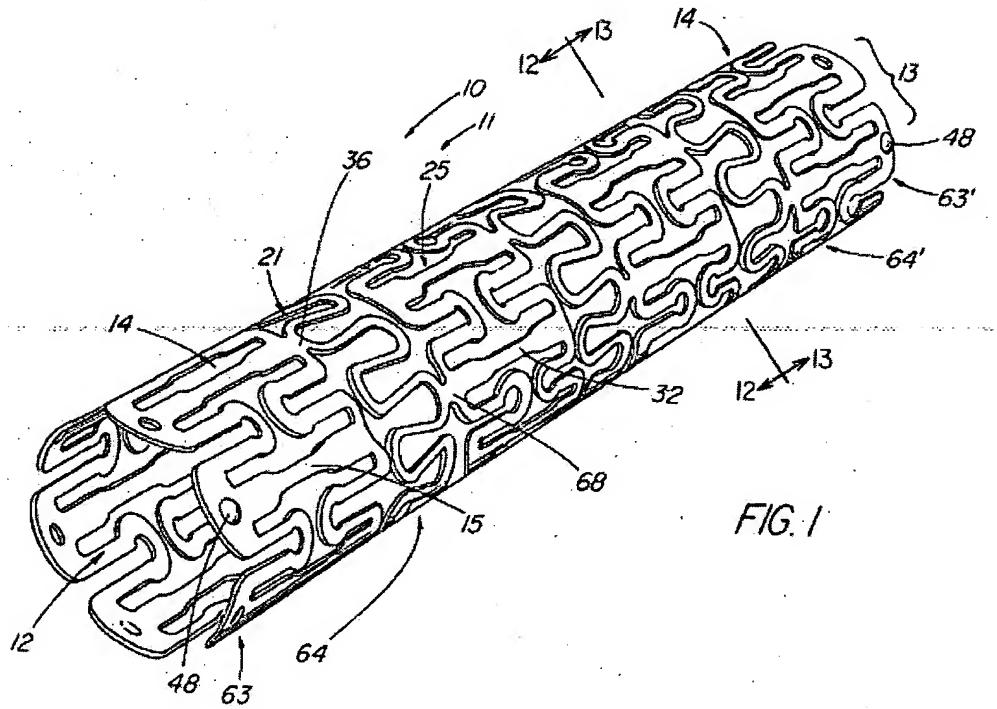


FIG. 2

Though there is a change in the perspective in the views of the stent 100 from FIG. 1 to FIG. 2, it is clear that the stent (100), and all of its peaks are distributed about, or disposed about, the longitudinal axis (102) as required by the claims. When the stent is transitioned from the unexpanded state of FIG. 1 to the expanded state shown in FIG. 2 the first peaks (110a) and the second peaks (110b) are moved from positions at different distances from the longitudinal axis (102), as shown in FIG. 1, to positions substantially equidistant from the longitudinal axis (102), as shown in FIG. 2. Berry simply does not show, describe or otherwise disclose such features as those illustrated in FIGs. 1-2 and described in the instant claims.

Looking now to the Berry reference, FIG. 1 of Berry, as presented below shows the stent in the *unexpanded* state (column 8, lines 35-37).

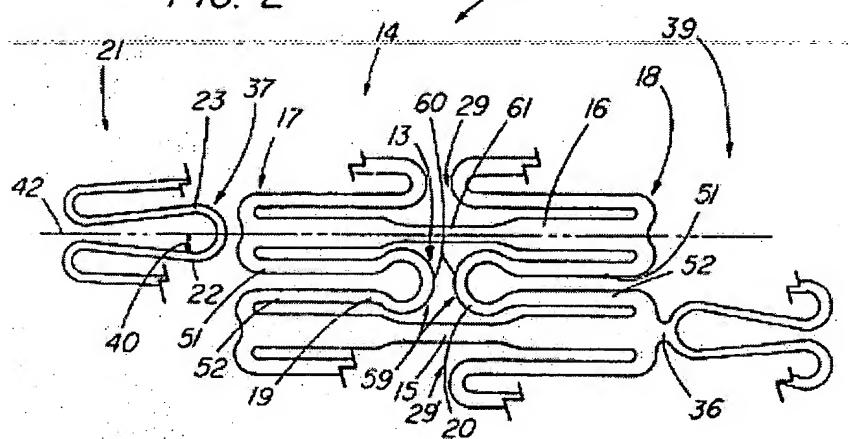


As illustrated above, if one were to presume the presence of a longitudinal axis about which the stent of Berry were disposed, it is clear that in the unexpanded state shown, **ALL** of the various peaks (or “curves” 18 and 28 as cited in the Final Office Action), which are disposed about such a longitudinal axis will **ALL** be substantially the same distance from the longitudinal axis.

Rather than recognize the uniform distribution of the unexpanded Berry stent about a longitudinal axis, which FIG. 1 of Berry provides, the Examiner has interpreted FIGs. 2 and 3 of Berry to provide a longitudinal axis wherein the “curves” 18 and 28 of Berry alter their relative positions as a result of expansion. While the curves 18 and 28 of Berry certainly alter their positions relative to the axis 42 shown, the stent of Berry is simply not disposed about the longitudinal axis 42 in the manner described in the instant claims.

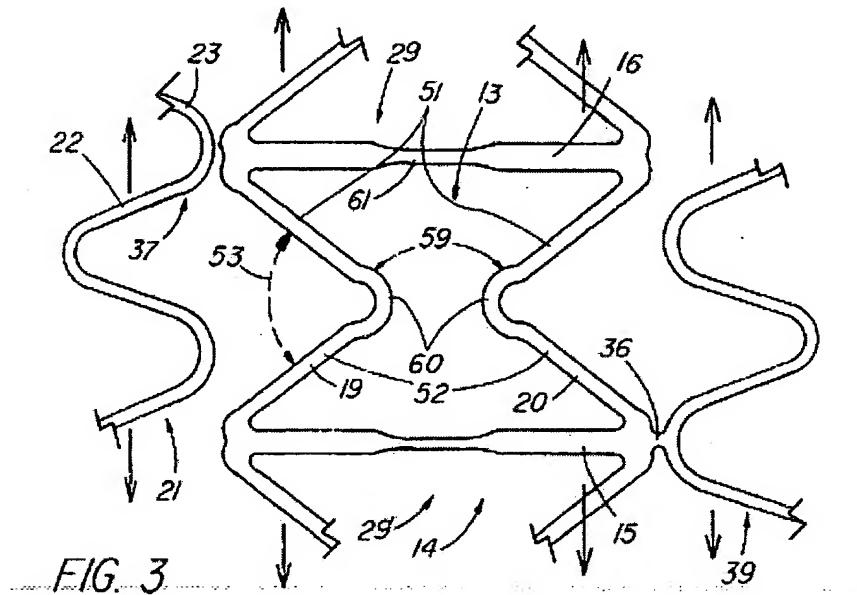
First it must be emphasized that FIG. 2 of Berry, reprinted below, shows an enlarged view of a cell of the *unexpanded* stent of FIG. 1.

FIG. 2



It would be readily apparent to one of ordinary skill in the art that the unexpanded stent of FIGs 1-2 simply does not have a plurality of first peaks disposed a first distance from the longitudinal axis of the stent and a plurality of second peaks disposed a second distance from the longitudinal axis of the stent as the instant claims describe.

FIG. 3 of Berry (also reprinted below) depicts an enlarged cell of FIG.2 in the *expanded* state. (column 6, lines 41-47).



The stent shown in FIGs. 2 and 3 of Berry is depicted from its side and is provided with a "longitudinal axis 42" relative to the stent to illustrate how struts (22 and 23) are angled relative to the axis (42) and further how the bend (37) formed by the struts (22 and 23) opens during radial expansion(column 11, lines 4-23). The longitudinal axis in this instance is

used as a reference guide for understanding how an aspect of the cell opening changes. In Berry such cells are part of the single wall structure shown in FIG. 1.

The Examiner however has either ignored the above disclosure of Berry (as well as the illustration of FIG 1), or misconstrued it in order to impose the reading of Berry presented in the Final Office Action. Nowhere in the Berry reference however, is there any disclosure that the stent shown in FIGs. 1-3 is *disposed* about the longitudinal axis 42, or that the curves 18 and 28 alter there positions relative to a longitudinal axis about which the stent is disposed.

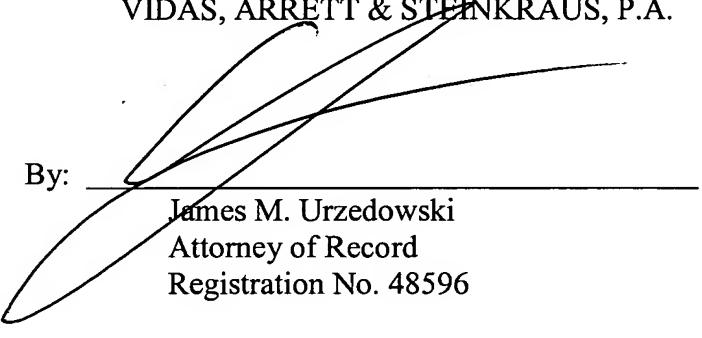
In light of the above the rejection to the instant claims is respectfully traversed.

CONCLUSION

As described above, Berry fails to describe all of the features of instant claims. Consequently, reversal of the rejections is respectfully requested.

Respectfully submitted,
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Date: August 16, 2005

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(viii) Claims Appendix

1. A stent having a reduced state and an expanded state, and further having longitudinal axis therethrough, the stent comprising at least one serpentine segment having a proximal end and a distal end, the serpentine segment comprising a plurality of peaks and troughs, in the reduced state a plurality of first peaks disposed at a first distance from the longitudinal axis of the stent and a plurality of second peaks disposed at a second distance from the longitudinal axis of the stent, the second distance less than the first distance, in the expanded state the first distance being substantially the same as the second distance, the first peaks defining a substantially cylindrical outer surface of the segment.
5. The stent of claim 1 wherein the troughs include first troughs and second troughs arranged in a regular alternating pattern about the longitudinal axis, the first troughs disposed at a first distance from the longitudinal axis of the stent, the second troughs disposed at a second distance from the longitudinal axis of the stent, the second distance different from the first distance.
8. The stent of claim 1 comprising a plurality of serpentine segments.
9. The stent of claim 8 wherein serpentine segments which are adjacent one another are connected one to the other.
10. The stent of claim 1 wherein the second peaks define a substantially cylindrical inner surface of the segment.
11. The stent of claim 10 wherein the substantially cylindrical inner surface of the segment tapers outward toward the substantially cylindrical outer surface of the segment.

(ix) Evidence Appendix

N/A

(x) Related Proceedings Appendix

N/A